

SEP 23 1982

COMPLETED

31

507-B-2

HE 20.8116:161

MENTAL HEALTH
Statistical
Note No. 161

A Comparison of U.S. and Foreign
Medical Graduates Employed by
State and County Mental Hospitals,
1975 and 1980

Armand Checker and Michael J. Witkin

ORIGINAL
September 1982

SUMMARY

Changes in the supply, demographic characteristics, and selected credentials of physicians employed by State and county mental hospitals were investigated via a survey in 1975 followed by a similar survey in 1980. Both surveys were conducted by the Survey and Reports Branch (SRB), Division of Biometry and Epidemiology (DBE), National Institute of Mental Health (NIMH), as a special Supplement to the Inventory of Mental Health Facilities, a survey form that is sent annually to all State and county mental hospitals in the United States.

A comparison of the data from the two surveys revealed that, overall, the hospitals employed 19 percent fewer physicians in 1980 than in 1975. More specifically, when the physicians were grouped by whether they were U.S. (and Canadian) medical school graduates (USMGs) or foreign medical school graduates (FMGs), it was shown that the number of USMGs had decreased by 23 percent and the FMGs by 13 percent. As a result, the FMG representation among the hospital physicians increased from 50 percent in 1975 to 53 percent in 1980. The comparatively smaller reduction in the number of FMGs was comprised of countervailing elements. There were 40 percent fewer graduates from medical schools in Europe, 31 percent fewer from Latin America, 16 percent fewer from the near/Middle East, and 14 percent more graduates from medical schools in the Far East (particularly India and South Vietnam).

Findings from the two surveys highlighted other changes as well. In comparison with the 1975 findings, the 1980 survey data showed a relatively large decline in the number of psychiatric residents training in the hospitals, a larger representation of females among the physicians, a greater number of physicians who were naturalized citizens, a higher proportion of physicians who maintained unlimited licenses to practice medicine especially among FMGs, and a larger percentage of psychiatrists who had earned board certification in their specialty.

BACKGROUND

In January 1975, the Survey and Reports Branch, Division of Biometry and Epidemiology, NIMH, added a Physician Supplement Questionnaire (Supplement) to its annual Inventory of Mental Health Facilities 1/ for the

purpose of studying the demographic characteristics and selected credentials of physicians employed 2/ and trained in State and county mental hospitals.3/ Items in the Supplement included questions about the country of origin for the medical degree, age, sex, citizenship, hours worked, licensure status, certification by the American Board of Psychiatry and Neurology (ABPN), and passage of an examination given by the Educational Commission for Foreign Medical Graduates (ECFMG).4/ A report based on information derived from this study has been published previously.5/

In April 1980, a modified version 6/ of the 1975 Supplement was mailed to each of the 280 State and county mental hospitals in operation as of that date. The intent of the two Supplements to the Inventory of Mental Health Facilities was to measure the impact of Public Law (PL) 94-484 (enacted in 1975 with an effective date of 1978) upon physician staffing at State and county mental hospitals. Public Law 94-484 was designed to reduce the growing reliance upon foreign medical graduates (FMGs) in the United States by restricting their opportunities to qualify for medical training and practice.7/

Although State and county mental hospitals were not the specific target of PL 94-484, they were greatly affected, since approximately one-half the number of physicians employed in these hospitals were FMGs. At the time that PL 94-484 was enacted, anxiety prevailed in the mental health sector concerning the possibility of a shortfall in staffing of physicians, given the heavy dependence of State and county mental hospitals upon FMGs for physician staffing. It developed that this worry was premature. Public Law 94-484 contained a provision through which the hospitals might request waivers for temporary relief from the restrictions of the law. After the legislation was enacted, many State and county mental hospitals requested, received, and subsequently renewed these waivers. Moreover, late in 1981, the Congress extended the waiver period for an additional 2 years.8/

At the time of the legislation's passage in 1974, the NIMH was not able to foretell that many hospitals would receive waivers or that these waivers would be renewed. But the Institute recognized clearly the potential impact of the enacted legislation upon the staffing resources of State and county mental hospitals. As a consequence, a set of two surveys was planned for State and county mental hospitals: the first in 1975; the second in 1980. The purpose was to survey the field before and after the impact of the legislation was felt. Although the surveys were chiefly motivated by the passage of legislation that has not yet been fully enforced, the data collected via the two surveys are useful on their own merits. The 1975 survey and its companion of 1980 compared physician staffing at two time periods, approximately 5 years apart. These data are reported in this Statistical Note.

Two other analyses by the Survey and Reports Branch, Division of Biometry and Epidemiology were predicated upon the same two surveys but used somewhat different data. One analysis 9/ used the aggregate physician census data derived from the main portion of the Inventory of Mental Health Facilities rather than the total of individual physician data compiled from the Supplement that are the foundation of this Statistical Note. The difference is that the latter represent approximately

90 percent of the physicians reported in the Inventory. The other analysis ^{10/} was restricted to data reported by a cohort of hospitals that participated in both of the surveys. Thus, the data presented below describe a larger and slightly different mix of hospitals than were involved in the cohort analyses.

Response Rate to the Supplement - 1975 and 1980

In 1975, each of the 310 State and county mental hospitals identified through the Inventory of Mental Health Facilities was sent a supplemental questionnaire that requested detailed information about physicians. The Supplement was completed by 299 of the hospitals and provided background information for 7,369 of the estimated 8,111 physicians (91 percent). In 1980, a nearly identical Supplement was sent to each of the 280 hospitals identified through the Inventory. Returns were obtained from 259 of these hospitals, providing data for 6,045 of the 6,581 estimated physicians (91 percent). However, for certain data items (e.g., age, sex), the number of physicians' responses was less. The number reporting is indicated in each of the data tables.

Table 1 shows the total number of mental hospitals and physicians per State based upon aggregate data from the two Inventories in parallel with the number of physicians reported in the two Supplements. In all other tables the statistics are based only on data reported in the two Supplements and are not adjusted either for nonrespondent hospitals or for nonrespondent physicians. The high response rate by hospitals in the 1975 and 1980 surveys minimizes the risk of nonrespondent bias.

Physicians to Patient Staffing Ratios

A comparison of the findings from the Inventory of Mental Health Facilities conducted in 1975 and 1980 revealed that the total number of physicians (reported and imputed) employed in State and county mental hospitals decreased from 8,111 to 6,581 (19 percent) between 1975 and 1980 (table 1). In the same time period, the number of State and county mental hospitals decreased from 310 to 280 (10 percent), and the average daily inpatient census decreased from 194,000 to 140,000 (27 percent). As a consequence, the staff-to-patient ratios increased. In 1975, there had been 32 full-time equivalent physicians per 1,000 average daily census in the hospitals surveyed. The ratio grew to 39 full-time equivalent physicians per 1,000 average daily census in 1980. This increase in staffing ratio is an outcome of the sharper decline of inpatients as compared to the decrease of physicians employed by the hospitals.

Changes in FMG Distribution by State

In the 1980 Supplement, 2,813 (47 percent) of the physicians ^{11/} were USMGs while 3,232 (53 percent) were FMGs (table 2). In 1975, the physician staff had been evenly divided between USMGs and FMGs.

Individual State data reflect the tendency towards relatively greater reliance on foreign trained physicians in 1980 as compared with 1975. Twenty-four States and the District of Columbia employed proportionately

more FMGs in their State and county hospitals during 1980 than during 1975; 21 States employed a smaller percentage of FMGs; 5 States did not change.

In general, States that employed high proportions of FMGs in 1975 also employed high proportions in 1980, but there were exceptions (see table 2) such as South Dakota (80 percent vs 36 percent), Missouri (71 percent vs 52 percent), and Maine (62 percent vs 13 percent). The situations in South Dakota and Maine were similar, a reduction in FMGs was synchronized with an increase in USMGs. Missouri had a different situation. A small increase in FMGs was outweighed by a substantive increase in USMGs.

Licensure

The numbers of USMGs and FMGs reported and the percentages of each type who had full (unlimited) licenses to practice in their States of employment are shown in table 3.

Thirty-six States reported higher percentages of physicians with unlimited licenses in 1980, compared with 1975. The larger percentage of physicians with unlimited licenses in 1980 was particularly evident among FMGs. On a State-by-State basis, there were equal or higher percentages of FMG physicians with unlimited licensure in 39 States and the District of Columbia in 1980.

An examination of FMGs with unlimited licenses on the basis of the nation and world region in which their MD degree was earned revealed that the increase in licenses was evident for graduates of nearly every nation (see table 4). The largest proportional increases were among graduates of medical schools located in the Far Eastern region of the world. In 1975, only 45 percent of these graduates held unlimited licenses; by 1980, three-fourths of them were fully licensed. Among the Far Eastern medical schools, those in the Philippines, India, and South Korea contributed the largest number of physicians and each of the three nations had a larger percentage of its graduates with unlimited licenses in 1980 than in 1975 (table 4). However, it is not known whether this increase is due to relaxation of licensing standards by some States or a reflection of better preparation on the part of the examinees.

Type of Staff Position and Employment Status

In tables 5a and 5b, data for USMGs and FMGs are grouped according to their type of staff position and their employment status (full-time or part-time employees). The major observable difference in table 5a was the data for psychiatric residents. The representation of psychiatric residents among the various categories of staff positions decreased from 17 percent to 11 percent between 1975 and 1980. This decrease occurred for both USMGs and FMGs. In 1975, USMG residents accounted for 14 percent of the U.S. physicians in State and county mental hospitals; by 1980, their representation was only 9 percent. Among FMGs in 1975, residents comprised 20 percent of the FMG positions; in 1980, the FMGs had decreased in representation to only 12 percent.

The percentage of decrease in training positions was accompanied by percentage increases for staff psychiatrists and "other staff physicians." Together, these two employment categories accounted for 81 percent of the physician staff in 1975 and 89 percent in 1980.

As shown in table 5b, overall, 80 percent of the physicians at State and county hospitals were employed on a full-time basis in 1975 and 1980. Approximately two-thirds of the USMGs were full-time employees in each of the two survey years. However, USMGs in "other staff positions" were less likely to be employed full-time. In 1975, only 47 percent were employed on a full-time basis; in 1980, 58 percent were full-time.

FMGs were characterized by a higher percentage of full-time physicians than USMGs. In the 1975 survey, 92 percent of the FMGs were full-time; in the 1980 survey, 88 percent were full-time. Much of the decrease of full-time FMG positions between 1975 and 1980 occurred among "other staff positions" in which the percentage of full-time FMGs fell from 88 percent in 1975 to 83 percent in 1980.

Age

The median age among USMGs rose from 46.3 years to 49.5 years between 1975 and 1980. Among FMGs, it rose only from 43.5 years to 44.5 years of age. A major reason for the higher median age in 1980 was the sharp reduction in the number of residents training at the hospitals. (Residents, of course, are drawn from the younger physician age group). This was evidenced by the finding that the median age for all physicians increased approximately 2 years; but when the residents were excluded from the calculation, the median age for the remainder of the physicians increased by only 1 year.

Another reason contributing to the higher median age for physicians employed at State and county mental hospitals was the variability in age among the residents between the two survey years (see table 6).^{12/} As an example, in 1975, approximately 65 percent of the residents were below 35 years of age; in 1980, a smaller percentage, only 57 percent of the residents, were below 35 years of age. This finding is ascribed to fewer residents entering training during the years preceding 1980 as compared with the years preceding 1975. Thus, in the 1980 survey, fewer first and second year (and, by definition, younger) residents were among the staff of the hospitals than in the 1975 survey.

Sex

Female representation among physicians who staffed State and county mental hospitals increased between 1975 (18 percent) and 1980 (21 percent) (see table 7). The increase of three percentage points between 1975 and 1980 for all physicians was mirrored in the data for both the USMGs and the FMGs. Among USMGs, the proportion of females rose from 11 to 14 percent between 1975 and 1980; among FMGs, it rose from 25 percent to 28 percent.

Female representation was highest among physicians in training status. Approximately 40 percent of the residents and fellows in 1980 were females.

This higher percentage of females among the youngest groups of hospital physicians may augur for a continued growth of female representation among all hospital physicians.

Citizenship

The most prominent change between 1975 and 1980 in the distribution of physicians in State and county mental hospitals according to their citizenship status was the increase in naturalized U.S. citizens (see figure 1). In the 1975 survey, 23 percent of the State and county hospital physicians had been naturalized as compared with 30 percent in 1980. The increase in the proportion of physicians who were naturalized U.S. citizens developed at the expense of noncitizen physicians. The latter group decreased from 28 percent of all physicians in 1975 to 24 percent in 1980. Native-born physicians as a group decreased slightly from 48 percent to 46 percent. Categorization of the physicians according to staff positions revealed that the pattern of changes in citizenship status for the individual subgroups (except for "other physicians") was similar to that of the composite of all physicians.

Board Certification

Certification by the American Board of Psychiatry and Neurology (ABPN) for staff psychiatrists at State and county mental hospitals increased between 1975 and 1980. The overall portion who were board certified rose from 32 percent to 39 percent. Grouped on the basis of their medical schools, the USMGs reported an increase in ABPN certification from 43 percent in 1975 to 51 percent in 1980. The certification among FMGs increased from 19 percent to 28 percent.

Comparison of board certification between full-time psychiatrists and part-time psychiatrists, as shown in figure 2, disclosed that a larger proportional increase had occurred among the full-time employees--from 39 to 49 percent for USMGs and from 18 to 28 percent for FMGs. Board certification among the part-time psychiatrists increased only slightly, from 53 to 56 percent for USMGs and from 32 to 33 percent for FMGs.

World Regions and Nations Awarding Medical Degrees

As discussed previously, FMG representation among physicians who staffed State and county mental hospitals increased from 50 percent in 1975 to 53 percent in 1980. Figure 3 shows changes in the sources of FMGs by world region. (These data are also reported in tables 4 and 8.) A large part of the percentage increase for FMGs was due to a larger proportion of physicians who graduated from medical schools in the Far East in 1980 (31 percent) compared to 1975 (22 percent). The rise in Far Eastern graduates overshadowed the decline of European medical school graduates who staffed the mental hospitals between 1975 and 1980 (14 percent vs 10 percent). Other regions of the world contributed a stable proportion of medical school graduates in the two survey years.

The distribution of physicians according to the region of the world and the specific nation where they earned their medical degrees is shown

in table 8.13/ The data disclosed that 44 percent of all FMGs had graduated from schools in the Far East in 1975 but their representation had increased to 57 percent in 1980. In each of the two survey years, the Philippines, India, Cuba, and South Korea were the largest providers of FMGs to the State and county mental hospitals. Together, these four nations accounted for 54 percent of the FMGs in 1980.

The decrease in the representation of physicians from Europe between 1975 and 1980 was attributable to the fewer physicians from medical schools in two Nations, Germany and Italy. One-third of the decrease was associated with the reduction of graduates from these two countries. Another decrease, although of much smaller magnitude, occurred for graduates of Latin American medical schools. Most of this decrease was attributable to a reduced number of physicians from medical schools in Cuba, Argentina, and Columbia.

FOOTNOTES

- 1/ Inventories of facilities, the purpose of which is to provide basic data on each mental health facility in the country with respect to caseload, staffing and expenditure patterns, and services provided. Psychiatric hospitals (including State and county mental hospitals) and community mental health centers are surveyed annually. Other facilities such as day/night psychiatric facilities, psychiatric outpatient clinics and residential treatment centers for emotionally disturbed children are surveyed biennially. The Physician Supplement Questionnaire was sent to State and county mental hospitals in January 1975 and April 1980.
- 2/ Includes those who have been awarded the degree of Doctor of Medicine (M.D.) or Doctor of Osteopathy (D.O.) or a foreign equivalent who regularly work in the hospital even though they may be paid by another agency. Excludes those who have privileges to see private patients unless they are employed also as staff psychiatrists, or other staff physicians by the hospital.
- 3/ County mental hospitals exist in only three States (Michigan, New Jersey, and Wisconsin) and function as though they were part of the State mental hospital system. They are included with the State hospitals in this report. St. Elizabeth's Hospital in the District of Columbia is also counted as a State hospital even though it is operated by the Federal Government.
- 4/ Definitions of data items on the Physician Supplement Form which are mentioned in this Statistical Note are as follows:
 - a. ABPN Certification -- ABPN certification indicates whether the physician has been certified by the American Board of Psychiatry and Neurology.
 - b. Age -- Age at last birthday.

- c. Citizenship -- Three categories were used:
- (1) U.S. native -- A citizen of the United States by virtue of birth.
 - (2) U.S. naturalized -- A person born outside the United States and its possessions who has been sworn in as a U.S. citizen.
 - (3) Other -- A citizen of a nation other than the United States.
- d. Country Where M.D. Received -- Refers to the nationality of the medical school where the physician received his medical degree.
- e. ECFMG Certification -- The process of certification by the Educational Council for Foreign Medical Graduates (ECFMG) includes the administration of written tests of English comprehension and medical knowledge, and vouching that the FMG earned his degree from a medical school recognized by the World Health Organization. ECFMG certification is a prerequisite for an FMG who wants to perform medical services or receive graduate medical training in the United States and whose medical degree was conferred by a medical school outside the United States, Puerto Rico, and Canada. It does not grant the FMG license to practice medicine independently.
- f. Hours Worked -- Hours worked is divided into two categories as follows:
- (1) Full-time -- Physicians who regularly are employed 35 hours or more in an average week.
 - (2) Part-time -- Physicians who regularly are employed less than 35 hours in an average week.
- g. Licensure Status -- Licensure status indicates the type of license the physician holds in the State in which he or she is employed. The categories are as follows:
- (1) Unlimited (full) license -- This license allows the physician to practice medicine anywhere in the State as well as in the particular hospital.
 - (2) Limited license -- This license allows the physician to practice medicine only in the hospital in which he or she is employed.
 - (3) Not licensed -- The item "not licensed" refers to a physician who is not licensed to practice medicine in the State or hospital where he or she is employed. Included in this category are an unknown number of M.D.'s who are licensed in a State other than the one in which they are employed.
- h. Type of Staff Position -- Five categories were used as follows:
- (1) Staff psychiatrist
 - (2) Other staff physician
 - (3) Resident
 - (4) Fellow or other trainee

- (5) Nonphysician position (e.g., medical assistant, lab technician, unlicensed physicians, researcher, etc.). Interns were subsumed under the category "fellow or other trainee."

5/ The report based on the January 1975 Physician Supplement is as follows:

National Institute of Mental Health. Statistical Note 131, Foreign Medical Graduates Employed in State and County Mental Hospitals. DHEW Pub. No. (ADM)76-158. Rockville, Md.: the Institute, July 1976.

6/ The two questionnaires are essentially similar; however, the April 1980 form asked a series of questions needed to determine the effect of PL 94-484 on the hiring of FMGs. The differences are as follows:

- (1) The 1980 form distinguishes between naturalized and native-born physicians; the 1975 form does not.
- (2) The 1980 form asks whether the physicians entered the U.S. prior to January 10, 1978, the date PL 94-484 went into effect, the 1975 form does not.
- (3) The 1980 form obtains information on the type of visa an FMG used to enter the U.S.; the 1975 form does not.
- (4) The 1980 form asks more detailed information on other types of exams passed (e.g., FLEX, Medical Boards) than the 1975 version.

7/ Title VI of the Health Professions Educational Assistance Act of 1976 (PL 94-484) which became effective January 10, 1978 required that alien physicians other than Canadian medical graduates meet the following requirements:

- a. An accredited school of medicine or its hospitals must have agreed to provide or assume responsibility for their training;
- b. The physician must have passed Parts I and II of the National Board of Medical Examiners examination (or its equivalent), must be competent in written and spoken English, must be able to adapt to the educational and cultural environment and must have adequate prior education and training to participate in the graduate medical-education program;
- c. The physician must have made a commitment to return to his country upon completion of his training and his country must have provided written assurance that there is currently a need for physicians with the specialized training sought;
- d. The individual will be allowed to remain in the United States for only 2 years, unless additional training is requested by the home country up to a maximum of 3 years total.

Waiver of the first two requirements for exchange visitors until December 31, 1980 is allowed by the Act, provided it can be demonstrated that a "substantial disruption in medical services" provided by the graduate medical-education program in which the alien seeks to participate would occur otherwise. The Attorney General is required by law, however, to

assure that, in granting waivers to mitigate the full effect of the Act during the transition period, the total number of aliens participating in graduate medical-education programs does not exceed the number of aliens participating 90 days after the enactment of the law (January 10, 1978) (Way, P.O.; Jensen, L.E.; and Goodman, L.J. Foreign medical graduates and the issue of substantial disruption of medical services. New England Journal of Medicine 299(14), 1978).

It is not known how many State and county mental hospitals applied for the waiver, how many received it, and how many M.D.s were affected.

- 8/ American Medical News, "Visa requirements liberalized for FMGs," January 1/8, 1982. p. 3.
- 9/ Bass, R.D. "Trends in the Employment Status of Psychiatrists." Unpublished manuscript, Rockville, Md., 1982.
- 10/ Thompson, J.W.; Witkin, M.J.; Checker, A.; Jenkins, J.; Goldman, H. "Study of Physician Staffing at State Mental Hospitals." Unpublished manuscript, Rockville, Md., 1982.
- 11/ Certain data in this statistical note reflect fewer than 6,045 physicians due to missing items of information about individual physicians from hospitals that responded to the survey.
- 12/ Total columns include physicians with "age unknown" which are not shown separately.
- 13/ Includes Africa and Oceania.

Table 1. Total number of State and county mental hospitals and physicians surveyed and number reported in the Physicians Supplement to the Inventory of Mental Health Facilities, by State, 1975 and 1980

State	1975				1980			
	Number of hospitals		Number of physicians		Number of hospitals		Number of physicians	
	Total	Reported	Total	Reported	Total	Reported	Total	Reported
U.S. totals...	310	299	8,111	7,369	280	259	6,581	6,055
Alabama.....	3	2	60	40	4	4	40	40
Alaska.....	1	1	11	11	1	-	7	-
Arizona.....	1	1	50	50	1	1	18	18
Arkansas.....	2	2	41	38	1	1	29	29
California....	9	9	1,064	c/ 607	6	6	336	336
Colorado.....	3	3	212	d/ 161	3	2	116	108
Connecticut...	5	5	135	135	8	7	147	146
Delaware.....	3	3	67	58	2	2	34	34
Dist. of Col..	1	1	163	161	1	1	207	207
Florida.....	5	5	112	112	6	6	129	129
Georgia.....	7	7	182	172	8	8	172	172
Hawaii.....	1	0	b/ 5	0	1	1	10	10
Idaho.....	2	2	8	8	2	2	6	6
Illinois.....	17	a/ 17	326	327	15	12	296	193
Indiana.....	8	8	133	116	8	7	112	98
Iowa.....	5	5	75	71	5	5	59	59
Kansas.....	3	3	88	88	3	3	69	69
Kentucky.....	5	5	40	40	5	5	57	56
Louisiana.....	3	3	82	86	5	5	79	79
Maine.....	2	2	21	21	2	2	30	30
Maryland.....	7	6	235	193	6	5	191	174
Massachusetts.	11	11	209	209	8	6	106	73
Michigan.....	17	17	408	403	12	12	405	405
Minnesota.....	9	9	69	69	6	5	62	57
Mississippi...	2	2	50	36	2	2	42	42
Missouri.....	8	5	238	149	8	8	201	201
Montana.....	1	1	9	9	1	1	7	7
Nebraska.....	4	4	62	62	4	4	52	52
Nevada.....	1	1	6	6	2	2	5	5
New Hampshire.	1	1	18	18	1	1	19	19

Table 1. Total number of State and county mental hospitals and physicians surveyed and number reported in the Physicians Supplement to the Inventory of Mental Health Facilities, by State, 1975 and 1980
(Continued)

State	1975				1980			
	Number of hospitals		Number of physicians		Number of hospitals		Number of physicians	
	Total	Reported	Total	Reported	Total	Reported	Total	Reported
New Jersey....	11	11	363	363	10	10	267	267
New Mexico....	1	1	5	5	1	-	9	-
New York.....	35	35	1,510	1,510	33	29	1,528	1,282
North Carolina	4	4	156	156	4	4	122	122
North Dakota..	1	1	12	12	1	1	16	16
Ohio.....	21	21	349	349	18	17	246	243
Oklahoma.....	3	3	79	79	3	2	71	28
Oregon.....	3	3	53	53	2	2	49	49
Pennsylvania..	21	21	566	555	17	16	438	412
Rhode Island..	1	1	39	39	1	1	19	19
South Carolina	3	3	132	132	4	4	124	124
South Dakota..	1	1	15	15	1	1	14	14
Tennessee.....	5	5	86	81	5	5	91	91
Texas.....	11	9	190	190	10	10	231	231
Utah.....	1	1	5	5	1	1	11	11
Vermont.....	1	1	5	5	1	1	9	9
Virginia.....	9	9	147	148	10	9	131	121
Washington....	2	2	35	35	2	2	36	36
West Virginia.	7	7	43	43	4	4	28	28
Wisconsin.....	21	e/ 18	124	124	14	13	91	90
Wyoming.....	1	1	8	8	1	1	8	8

a/ One hospital in Illinois had no physicians on its staff.

b/ The one State mental hospital in Hawaii did not report. The estimate of 5 physicians was obtained from a report filed in January 1975.

c/ In two teaching hospitals in California, 357 part-time staff psychiatrists who were involved in teaching and/or research were inadvertently excluded from Supplement.

d/ A total of 51 residents at a Colorado hospital were originally erroneously classified as medical students and were not counted in the Supplement.

e/ Three hospitals in Wisconsin were in the process of being converted to extended care facilities and reported no physicians on their staffs.

Table 2. Percentage of State and county mental hospital physicians grouped by whether physicians graduated from U.S. or foreign medical schools, by State, 1975 and 1980

State	Number of physicians reported		Percentage of FMGs		Percentage of USMGs	
	1975	1980	1975	1980	1975	1980
U.S. totals....	7,362	6,045	50.4	53.5	49.6	46.5
Alabama.....	40	40	47.5	32.5	52.5	67.5
Alaska.....	11	NA	-	NA	100.0	NA
Arizona.....	50	18	16.0	44.4	84.0	55.6
Arkansas.....	38	29	5.3	3.4	94.7	96.6
California....	607	336	5.6	29.3	94.4	70.5
Colorado.....	161	108	10.6	17.6	89.4	82.4
Connecticut...	135	146	71.9	74.0	38.1	26.0
Delaware.....	158	34	48.3	85.3	51.7	14.7
Dist. of Col..	161	207	31.1	39.1	68.9	60.9
Florida.....	112	129	76.8	86.0	23.2	14.0
Georgia.....	172	172	57.0	70.3	43.0	29.7
Hawaii.....	NA	10	NA	40.0	NA	60.0
Idaho.....	8	6	37.5	16.7	62.5	83.3
Illinois.....	327	193	70.0	66.8	30.0	33.2
Indiana.....	116	98	36.2	27.6	63.8	72.4
Iowa.....	71	59	50.7	49.2	49.3	50.8
Kansas.....	88	68	58.0	64.7	42.0	35.3
Kentucky.....	40	56	55.0	66.1	45.0	34.9
Louisiana.....	86	79	14.0	35.4	86.0	64.6
Maine.....	21	30	61.9	13.3	38.1	86.7
Maryland.....	193	174	73.6	71.3	26.4	28.7
Massachusetts.	209	73	56.0	46.6	44.0	53.4
Michigan.....	403	405	62.0	67.4	38.0	32.6
Minnesota.....	64	57	32.8	43.9	67.2	56.1
Mississippi...	36	42	19.4	16.7	80.6	83.3
Missouri.....	149	201	70.5	58.2	29.5	41.8
Montana.....	9	7	77.8	71.4	22.2	28.6
Nebraska.....	62	52	25.8	30.8	74.2	69.2
Nevada.....	6	4	50.0	50.0	50.0	50.0
New Hampshire..	18	19	33.3	57.9	66.7	42.1
New Jersey....	363	266	69.1	65.0	30.9	35.0
New Mexico....	5	NA	40.1	NA	60.0	NA
New York.....	1,509	1,275	68.7	63.6	31.3	36.4
North Carolina	156	122	50.0	45.9	50.0	54.1
North Dakota..	12	16	66.7	87.5	33.3	12.5
Ohio.....	348	243	70.7	58.8	29.3	41.2
Oklahoma.....	79	28	40.5	78.6	59.5	21.4
Oregon.....	53	49	22.6	22.4	77.4	77.6
Pennsylvania..	555	412	25.4	37.1	74.6	62.9
Rhode Island..	39	19	87.2	63.2	12.8	36.8
South Carolina	132	124	47.0	51.6	53.0	48.4
South Dakota..	15	14	80.0	35.7	20.0	64.3
Tennessee.....	81	91	48.1	50.5	51.9	49.5
Texas.....	190	231	30.0	35.9	70.0	64.1
Utah.....	5	11	20.0	27.3	80.0	72.7
Vermont.....	11	9	18.2	33.3	81.8	66.7
Virginia.....	148	121	74.3	66.1	25.7	33.9
Washington....	35	36	37.1	22.2	62.9	17.8
West Virginia.	43	28	83.7	67.9	16.3	32.1
Wisconsin.....	124	90	11.3	25.6	88.7	74.4
Wyoming.....	8	8	-	-	100.0	100.0

Table 3. Percentage of U.S. and foreign medical graduates employed at State and county mental hospitals with unlimited licenses to practice, by State, 1975 and 1980

State in which employed	1975				1980			
	USMGs		FMGs		USMGs		FMGs	
	Number of physicians reported	Percent- age with unlimited licenses	Number of physicians reported	Percent- age with unlimited licenses	Number of physicians reported	Percent- age with unlimited licenses	Number of physicians reported	Percent- age with unlimited licenses
U.S. totals...	3,654	93.0	3,708	57.6	2,813	94.8	3,232	78.9
Alabama.....	21	95.2	19	26.3	27	100.0	13	46.2
Alaska.....	11	100.0	-	-	NA	NA	NA	NA
Arizona.....	42	73.8	8	25.0	10	100.0	8	75.0
Arkansas.....	36	100.0	-	-	28	100.0	1	100.0
California....	573	94.8	34	79.4	237	98.3	99	96.0
Colorado.....	144	92.4	17	52.9	89	98.9	19	94.7
Connecticut...	38	97.4	97	50.5	38	100.0	108	56.5
Delaware.....	30	63.3	28	46.4	5	100.0	29	24.1
Dist. of Col..	111	63.1	50	38.0	126	59.5	81	45.7
Florida.....	26	42.3	86	58.1	18	55.6	111	81.1
Georgia.....	74	82.4	98	67.3	51	94.1	121	60.3
Hawaii.....	NA	NA	NA	NA	6	16.7	4	75.0
Idaho.....	5	100.0	3	33.3	5	100.0	1	100.0
Illinois.....	98	94.9	229	44.5	64	96.9	129	94.6
Indiana.....	74	94.6	42	38.1	71	100.0	27	96.3
Iowa.....	35	97.1	36	47.2	30	96.7	29	79.3
Kansas.....	37	75.7	51	19.6	24	91.7	44	43.2
Kentucky.....	18	94.4	22	40.9	19	100.0	37	21.1
Louisiana.....	74	100.0	12	8.3	51	94.1	28	53.6
Maine.....	8	100.0	13	100.0	20	100.0	4	100.0
Maryland.....	51	98.0	142	74.6	50	98.0	124	92.7
Massachusetts.	92	93.5	117	35.9	39	97.4	34	73.5
Michigan.....	153	91.5	250	58.8	132	94.7	273	76.2
Minnesota.....	43	95.3	21	71.4	32	100.0	25	76.0
Mississippi...	29	96.6	7	14.3	35	100.0	7	14.3

Table 3. Percentage of U.S. and foreign medical graduates employed at State and county mental hospitals with unlimited licenses to practice, by State, 1975 and 1980 (Continued)

State in which employed	1975				1980			
	USMGs		FMGs		USMGs		FMGs	
	Number of physicians reported	Percentage with unlimited licenses	Number of physicians reported	Percentage with unlimited licenses	Number of physicians reported	Percentage with unlimited licenses	Number of physicians reported	Percentage with unlimited licenses
Missouri.....	44	100.0	105	68.6	84	88.1	117	84.6
Montana.....	2	100.0	7	28.6	2	100.0	5	80.0
Nebraska.....	46	100.0	16	93.8	36	94.4	16	81.3
Nevada.....	3	100.0	3	100.0	2	100.0	2	100.0
New Hampshire.	12	91.7	6	100.0	8	75.0	11	90.9
New Jersey....	112	98.2	251	57.8	93	100.0	173	90.8
New Mexico....	3	100.0	2	50.0	NA	NA	NA	NA
New York.....	472	93.2	1,037	66.6	464	94.4	811	81.0
North Carolina	78	94.9	78	53.8	66	98.5	56	91.1
North Dakota..	4	75.0	8	25.0	2	100.0	14	50.0
Ohio.....	102	99.0	246	45.1	100	100.0	143	95.1
Oklahoma.....	47	100.0	32	21.9	6	100.0	22	9.1
Oregon.....	41	85.4	12	16.7	38	92.1	11	54.5
Pennsylvania..	414	96.6	141	78.7	259	99.6	153	91.5
Rhode Island..	5	100.0	34	61.8	7	100.0	12	91.7
South Carolina	70	100.0	62	80.6	64	93.8	60	91.7
South Dakota..	3	66.7	12	16.7	9	100.0	5	20.0
Tennessee.....	42	95.2	39	23.1	45	100.0	46	52.2
Texas.....	133	97.0	57	84.2	148	98.0	83	85.5
Utah.....	4	100.0	1	100.0	8	100.0	3	100.0
Vermont.....	9	88.9	2	100.0	6	100.0	3	100.0
Virginia.....	38	94.7	110	39.1	41	97.6	80	78.8
Washington....	22	81.8	13	92.3	28	92.9	8	62.5
West Virginia.	7	100.0	36	11.1	9	100.0	19	31.6
Wisconsin.....	110	97.3	14	85.7	67	97.0	23	87.0
Wyoming.....	8	75.0	-	-	8	100.0	-	-

See footnote 4/ page 16 for definitions.

Table 4. Percentage of U.S. and foreign medical graduates employed at State and county mental hospitals with unlimited license to practice, grouped by region of world and nation in which physicians earned medical degree, 1975 and 1980

Country and region of world of medical degree	1975		1980	
	Number of physicians reported	Percentage with unlimited license	Number of physicians reported	Percentage with unlimited license
Grand Total.....	7,362	75.1	6,069	86.3
U.S. and Canada.....	3,654	93.0	2,829	94.8
Foreign nations.....	3,705	57.6	3,240	78.7
Far East, total.....	1,631	44.9	1,853	74.8
Philippines.....	698	38.3	664	65.2
India.....	424	47.2	622	76.8
South Korea.....	245	42.4	258	85.6
Pakistan.....	54	56.3	68	86.8
South Vietnam.....	2	42.3	50	61.3
Peoples Republic of China.....	54	68.5	49	85.7
Taiwan (Republic of China).....	35	71.4	39	87.2
Thailand.....	27	40.7	29	100.0
Others.....	92	55.4	78	87.9
Europe, total.....	1,038	73.5	619	86.9
West Germany.....	151	76.8	77	96.1
Italy.....	145	79.3	75	84.0
United Kingdom.....	74	78.4	61	88.5
Spain.....	68	63.2	57	80.7
Poland.....	79	60.8	45	88.9
Hungary.....	74	70.3	37	86.5
Greece.....	46	73.9	35	85.7
Switzerland.....	59	88.1	35	88.6
Austria.....	59	78.0	34	88.2
Others.....	283	70.3	163	84.6
Latin America, total.	721	60.5	498	80.5
Cuba.....	365	68.5	219	90.4
Mexico.....	81	44.4	78	62.8
Argentina.....	82	62.2	55	85.5
Dominican Republic.	25	48.0	35	40.0
Columbia.....	48	50.0	24	79.2
Peru.....	27	51.9	20	85.0
Haiti.....	12	41.7	18	66.7
Others.....	81	54.3	49	91.6
Near/Middle East, tot.	291	64.9	244	83.2
Turkey.....	136	65.4	98	89.8
Iran.....	73	65.8	64	84.4
Egypt.....	43	65.1	42	59.5
Others.....	39	61.5	40	90.0
All other regions and unknown 10/.....	24	58.8	26	88.9

See footnote 4/ page 16 for definitions.

Table 5. Percent distribution of all physicians and U.S. and foreign medical graduates employed at State and county mental hospitals grouped by employment status and staff position, 1975 and 1980

Staff position	1975				1980			
	Number of physicians reported	Total	Full-time	Part-time	Number of physicians reported	Total	Full-time	Part-time
a. Percent distribution of physicians by employment status					a. Percent distribution of physicians by employment status			
All physicians, total...	7,362	100.0	100.0	100.0	6,045	100.0	100.0	100.0
Staff psychiatrists...	3,553	48.3	48.7	46.5	3,361	55.6	57.0	50.7
Other staff physicians	2,416	32.8	28.7	49.4	1,999	33.1	29.4	46.8
Psychiatric residents.	1,237	16.8	20.2	3.0	650	10.8	13.0	2.2
Fellows/other trainees	94	1.3	1.4	0.9	32	0.5	0.6	0.3
Nonphysician positions	62	0.8	1.0	0.0	3	0.0	0.0	-
USMGs, total.....	3,654	100.0	100.0	100.0	2,813	100.0	100.0	100.0
Staff psychiatrists...	1,838	50.3	52.4	45.7	1,575	56.0	58.5	50.5
Other staff physicians	1,248	34.2	26.8	49.8	971	34.5	28.8	47.1
Psychiatric residents.	497	13.6	18.4	3.4	250	8.9	11.9	2.2
Fellows/other trainees	52	1.4	1.7	0.9	16	0.6	0.7	0.2
Nonphysician positions	19	0.5	0.7	0.2	1	0.0	0.1	-
FMGs, total.....	3,708	100.0	100.0	100.0	3,232	100.0	100.0	100.0
Staff psychiatrists...	1,715	46.2	46.0	49.5	1,786	55.3	55.8	51.1
Other staff physicians	1,168	31.5	30.1	47.6	1,028	31.8	29.9	46.3
Psychiatric residents.	740	20.0	21.6	1.6	400	12.4	13.8	2.3
Fellows/other trainees	42	1.1	1.1	1.0	16	0.5	0.5	0.3
Nonphysician positions	43	1.2	1.2	0.3	2	0.0	0.0	-
b. Percent distribution of physicians by staff positions					b. Percent distribution of physicians by staff positions			
All physicians, total...	7,362	100.0	80.0	20.0	6,045	100.0	79.1	20.9
Staff psychiatrists...	3,553	100.0	80.7	19.3	3,361	100.0	80.9	19.1
Other staff physicians	2,416	100.0	70.0	30.0	1,991	100.0	70.3	29.7
Psychiatric residents.	1,237	100.0	96.4	3.6	650	100.0	95.7	4.3
Fellows/other trainees	94	100.0	86.2	13.8	32	100.0	90.6	9.4
Nonphysician positions	62	100.0	95.2	4.8	3	100.0	*	*
USMGs, total.....	3,654	100.0	68.2	31.8	2,813	100.0	68.8	31.2
Staff psychiatrists...	1,838	100.0	71.1	28.9	1,575	100.0	71.9	28.1
Other staff physicians	1,248	100.0	46.5	53.5	971	100.0	57.5	42.5
Psychiatric residents.	497	100.0	92.2	7.8	250	100.0	92.4	7.6
Fellows/other trainees	52	100.0	80.8	19.2	16	100.0	87.5	12.5
Nonphysician positions	19	100.0	89.5	10.5	1	100.0	*	*
FMGs, total.....	3,708	100.0	91.7	8.3	3,232	100.0	88.0	12.0
Staff psychiatrists...	1,715	100.0	91.1	9.9	1,786	100.0	88.9	11.1
Other staff physicians	1,168	100.0	87.5	12.5	1,028	100.0	82.5	17.5
Psychiatric residents.	740	100.0	99.3	0.7	400	100.0	97.8	2.2
Fellows/other trainees	42	100.0	92.9	7.1	16	100.0	93.8	6.2
Nonphysician positions	43	100.0	97.7	2.3	2	100.0	*	*

* Too few in numbers for meaningful distribution.

Table 6. Percent distribution of U.S. and foreign medical graduates employed at State and county mental hospitals by staff position and age, 1975, and 1980

		1975							1980				
Staff position	Number of physicians reported	Age in years					Number of physicians reported	Age in years					
		All ages ^{9/}	Less than 35	35-44	45-64	65+ & over		All ages ^{9/}	Less than 35	35-44	45-64	65+ & over	
		Percent distribution of physicians							Percent distribution of physicians				
All physicians, total...	7,345	100.0	21.2	27.0	43.7	7.7	6,047	100.0	17.4	27.9	46.5	7.9	
Staff psychiatrists...	3,539	100.0	11.0	30.8	51.1	6.8	3,362	100.0	13.4	30.2	50.5	5.8	
Other staff physicians	2,415	100.0	12.6	23.8	49.3	13.4	2,000	100.0	10.5	24.6	50.8	14.0	
Residents.....	1,235	100.0	65.1	22.6	12.3	-	650	100.0	56.9	28.0	14.8	0.2	
Fellows/other trainees	94	100.0	58.5	21.3	20.2	-	32	100.0	71.9	18.8	9.4	-	
Nonphysician positions	62	100.0	11.3	17.7	58.1	12.9	31	100.0	*	*	*	*	
USMGs, total.....	3,654	100.0	21.9	22.9	44.4	10.0	2,815	100.0	19.0	20.9	49.5	10.4	
Staff psychiatrists...	1,838	100.0	12.5	29.7	49.7	7.6	1,576	100.0	15.0	25.5	53.1	6.3	
Other staff physicians	1,248	100.0	10.7	17.9	52.0	17.9	972	100.0	10.6	14.7	54.7	19.7	
Residents.....	497	100.0	79.5	12.5	8.0	-	250	100.0	74.4	15.6	9.6	-	
Fellows/trainees.....	52	100.0	80.8	9.6	9.6	-	16	100.0	50.0	31.2	18.8	-	
Nonphysician positions	19	100.0	5.3	10.5	73.7	10.5	1	100.0	*	*	*	*	
FMGs, total.....	3,691	100.0	20.6	31.0	42.8	5.5	3,232	100.0	15.9	34.3	44.0	5.6	
Staff psychiatrists...	1,701	100.0	9.5	32.0	52.6	5.9	1,786	100.0	12.0	34.3	48.2	5.3	
Other staff physicians	1,167	100.0	14.7	30.1	46.4	8.5	1,028	100.0	10.5	33.4	47.2	8.6	
Residents.....	738	100.0	55.4	29.4	15.2	-	400	100.0	46.0	35.8	18.0	-	
Fellows/other trainees	42	100.0	31.0	35.7	33.3	-	16	100.0	50.0	31.2	18.8	-	
Nonphysician positions	43	100.0	14.0	20.9	51.1	14.0	2	100.0	*	*	*	*	

See footnote 4/ page 16 for definitions.

* Too few in numbers for meaningful distribution.

Table 7. Percent distribution of U.S. and foreign medical graduates employed at State and county mental hospitals, by staff position and sex, 1975 and 1980

Staff position	Number of physicians reported	1975			Number of physicians reported	1980			
		Sex				Sex			
		Total	Male	Female		Total	Male	Female	
		Percent distribution of physicians					Percent distribution of physicians		
All physicians, total..	7,345	100.0	82.1	17.9	6,055	100.0	78.6	21.4	
Staff psychiatrists...	3,539	100.0	85.6	14.4	3,365	100.0	80.6	19.4	
Other staff physicians	2,415	100.0	82.8	17.2	2,005	100.0	81.6	18.4	
Residents.....	1,235	100.0	71.4	28.6	650	100.0	60.2	39.8	
Fellows/other trainees	94	100.0	80.9	19.1	32	100.0	59.4	40.6	
Nonphysician positions	62	100.0	67.7	2.3	3	100.0	66.7	33.3	
USMGs, total.....	3,654	100.0	89.4	10.6	2,815	100.0	86.5	13.5	
Staff psychiatrists...	1,838	100.0	89.6	10.4	1,576	100.0	87.3	12.7	
Other staff physicians	1,248	100.0	91.0	9.0	972	100.0	89.6	10.4	
Residents.....	497	100.0	84.3	15.7	250	100.0	72.0	28.0	
Fellows/other trainees	52	100.0	86.5	13.5	16	100.0	56.3	43.7	
Nonphysician positions	19	100.0	94.7	5.3	1	100.0	*	*	
FMGs, total.....	3,691	100.0	74.9	25.1	3,240	100.0	71.7	28.3	
Staff psychiatrists...	1,701	100.0	81.3	18.7	1,789	100.0	74.7	28.3	
Other staff physicians	1,167	100.0	74.0	26.0	1,033	100.0	74.1	25.9	
Residents.....	738	100.0	62.7	37.3	400	100.0	52.8	47.2	
Fellows/other trainees	42	100.0	73.8	26.2	16	100.0	62.5	37.5	
Nonphysician positions	43	100.0	55.8	44.2	2	100.0	*	*	

See footnote 4/ page 16 for definitions.

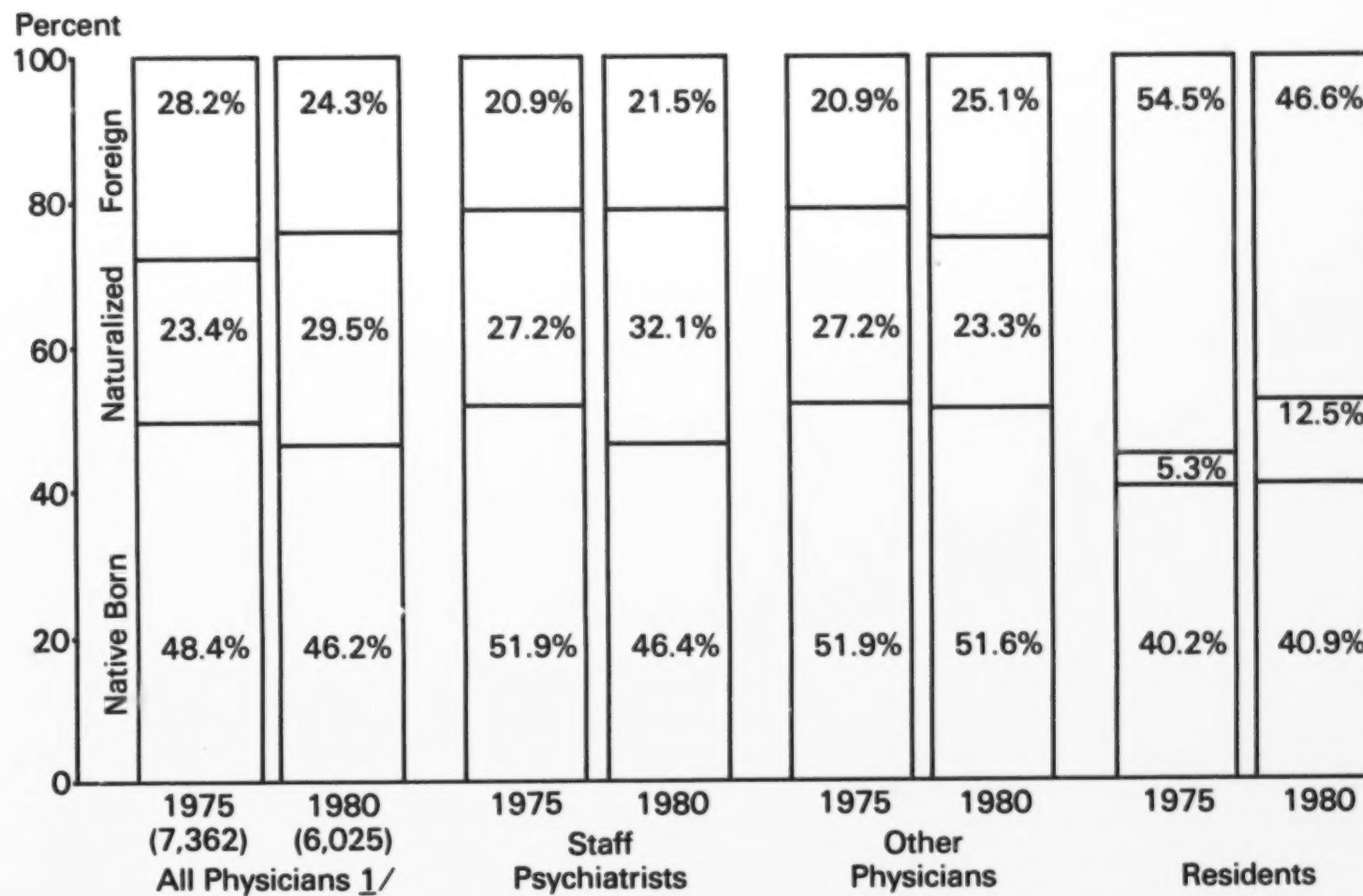
* Too few in numbers for meaningful distribution.

Table 8. Percent distribution of U.S. and foreign medical graduates employed at State and county mental hospitals, by region of world and nation where physicians earned medical degree, 1975 and 1980

Region of the world and country awarding degree	Number of physicians reported	1975		Number of physicians reported	1980	
		Percent distribution (incl. US & Canada)	Percent distribution (excl. US & Canada)		Percent distribution (incl. US & Canada)	Percent distribution (excl. US & Canada)
Grand total.....	7,359	100.0	--	6,055	100.0	--
U.S. & Canada.....	3,654	49.6	--	2,815	46.5	--
Foreign nations.....	3,705	50.4	100.0	3,240	53.5	100.0
Far East, total.....	1,631	22.2	44.2	1,853	30.6	57.2
Philippines.....	698	9.5	18.8	664	11.0	20.5
India.....	424	5.8	11.4	622	10.3	19.2
Pakistan.....	54	0.7	1.7	68	1.1	2.1
Peoples Republic of China.....	54	0.7	1.5	49	0.8	1.5
Taiwan (Republic of China).....	35	0.5	0.9	39	0.6	1.2
Thailand.....	27	0.4	0.7	25	0.4	0.8
South Korea.....	245	3.3	6.6	258	4.3	8.0
South Vietnam.....	2	0.0	0.1	50	0.8	1.5
Others.....	92	1.2	2.5	78	1.3	2.4
Europe, total.....	1,038	14.1	27.9	619	10.2	19.1
West Germany.....	151	2.1	4.1	77	1.3	2.4
Italy.....	145	2.0	3.9	75	1.2	2.3
United Kingdom.....	74	1.0	2.0	61	1.0	1.9
Spain.....	68	0.9	1.8	57	0.9	1.8
Poland.....	79	1.1	2.1	45	0.7	1.4
Hungary.....	74	1.0	2.0	37	0.6	1.1
Greece.....	46	0.6	1.2	35	0.6	1.1
Switzerland.....	59	0.8	1.6	35	0.6	1.1
Austria.....	59	0.8	1.6	34	0.6	1.0
Others.....	283	3.8	7.6	163	2.7	5.0
Latin America, total.....	721	9.0	19.4	498	8.2	15.4
Cuba.....	365	4.9	9.8	219	3.6	6.8
Mexico.....	81	1.1	2.2	78	1.3	2.4
Argentina.....	82	1.1	2.2	55	0.9	1.7
Dominican Republic.....	25	0.3	0.7	35	0.6	1.1
Columbia.....	48	0.7	1.3	24	0.4	0.7
Peru.....	27	0.4	0.7	20	0.3	0.6
Haiti.....	12	0.2	0.3	18	0.3	0.6
Others.....	81	1.1	2.2	49	0.8	1.5
Near/Middle East.....	291	4.0	7.9	244	4.0	7.5
Turkey.....	136	1.9	3.7	98	1.6	3.0
Iran.....	73	1.0	2.0	64	1.0	2.0
Egypt.....	43	0.6	1.2	42	0.7	1.3
Others.....	39	0.5	1.0	40	0.7	1.2
All other regions and unknown <u>10</u> /.....	24	0.4	0.6	26	0.5	0.8

See footnote 4/ page 16 for definitions.

Figure 1 Percent distribution of U.S. and foreign medical graduates employed at State and county mental hospitals, by type of U.S. citizenship, 1975 and 1980.



^{1/} Includes fellows, other trainees and nonphysician positions *not* shown elsewhere.

Figure 2 Percent distribution of U.S. and foreign medical graduates employed at State mental hospitals, by whether or not board certified in psychiatry and employment status, 1975 and 1980.

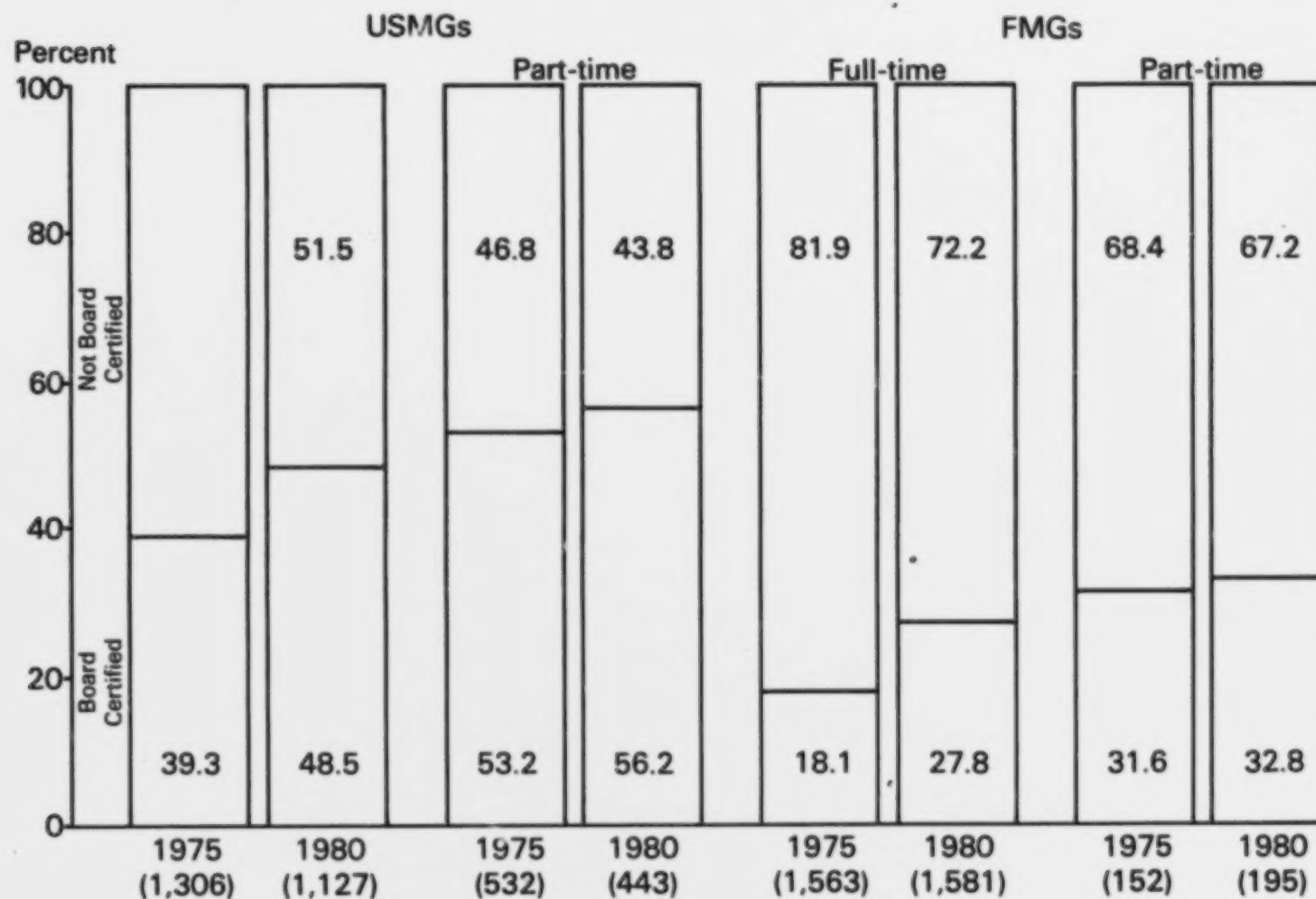


Figure 3 Percent distribution of U.S. and foreign medical graduates employed at State and county mental hospitals, grouped by region of the world where physicians earned medical degrees, 1975 and 1980.

